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FINAL REPORT

Contract No. RD-53-SA Research Order No. 1RD-14

Approved by:

25X1

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25X1

Covering period from April 5, 1955 to June 5, 1955

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INTRODUCTION

This report summarizes the investigation of a method of electrical jamming of a crystal microphone. A method of jamming has been developed utilizing radio frequency fields which are amplitude modulated with noise. A series of tests have been conducted to determine the effectiveness of this method with different types of microphones, amplifiers, and cables.

METHOD OF ATTACK

The jamming method utilized the microphone cable as an antenna. Since the crystal microphone has a high impedance, an appreciable voltage may be induced on the microphone cable. In the vicinity of an RF field, a standing wave is set up along the shielded microphone cable. If this voltage is high enough, demodulation occurs at the amplifier input stage due to non-linearity. It was considered that if the RF signal were of sufficient intensity, the de-

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